

**CLAIMS**

1. Use of interleukin-7 or T lymphocytes previously incubated in the presence of IL-7 for preparing a drug or a pharmaceutical composition for treating an autoimmune disease.

2. Use according to claim 1, said autoimmune disease being generated by a failure in the production of IL-4 by Th2 cells.

3. Use according to claim 1 or claim 2, said autoimmune disease being generated by a failure in the production of IL-4 connected with a quantitative and functional deficiency of a T cell with sub-type HSA<sup>+</sup>, CD4<sup>+</sup>CD8<sup>+</sup> or CD4<sup>+</sup>CD8<sup>-</sup>, CD44<sup>+</sup>, TCR- $\alpha\beta$ <sup>+</sup>, V $\beta$ 8<sup>+</sup>, NK1.1<sup>+</sup>.

4. Use according to claim 1, 2 or 3, said autoimmune disease being insulin-dependent diabetes mellitus, autoimmune encephalo-myelitis, autoimmune rheumatoid arthritis, polyarthrititis, autoimmune type 2 hepatitis, autoimmune gastritis, autoimmune sclerosis, sialadenitis, adrenalitis, oophoritis, glomerulonephritis or autoimmune thyroiditis or autoimmune type pathogenic mechanisms in a therapy associated with treating AIDS.

5. Use according to claim 1, 2, 3 or 4, said autoimmune disease being insulin-dependent diabetes mellitus.

6. Use according to any one of the preceding claims, said T lymphocytes being autological or syngeneic cells from cells of patients for whom the pharmaceutical composition comprising them is intended.

7. A pharmaceutical composition for treating autoimmune diseases comprising as the active principle, autologous or syngeneic T lymphocytes from cells of the patient for whom the pharmaceutical composition is intended, said T lymphocytes having previously been incubated in the presence of IL-7.

8. A pharmaceutical composition according to

claim 7, for treating an autoimmune disease generated by a failure in the production of IL-4 by Th2 cells.

9. A pharmaceutical composition according to claim 7 or claim 8, for treating an autoimmune disease generated by a failure in the production of IL-4 connected with a quantitative and functional deficiency of cells of the sub-type HSA<sup>+</sup>, CD4<sup>+</sup>CD8<sup>+</sup> or CD4<sup>+</sup>CD8<sup>-</sup>, CD44<sup>+</sup>, TCR- $\alpha\beta$ <sup>+</sup>, V $\beta$ 8<sup>+</sup>, NK1.1<sup>+</sup>.

10. A pharmaceutical composition according to any one of claims 7, 8 or 9, for treating insulin-dependent diabetes mellitus.

11. A process for producing a pharmaceutical composition for treating autoimmune diseases, comprising mixing autologous or syngeneic T lymphocytes from cells of the patient for whom the composition is intended, said T lymphocytes having previously been incubated in the presence of IL-7 with a pharmaceutically acceptable vehicle or diluent, optionally combined with other active principles.

12. A process for producing a pharmaceutical composition for treating an autoimmune disease according to claim 11, said autoimmune disease being generated by a failure in the production of IL-4 by Th2 cells.

13. A process for producing a pharmaceutical composition for treating an autoimmune disease according to claim 11 or claim 12, said autoimmune disease being generated by a failure in IL-4 production connected with a quantitative and functional deficiency of T cells with sub-type HSA<sup>+</sup>, CD4<sup>+</sup>CD8<sup>+</sup> or CD4<sup>+</sup>CD8<sup>-</sup>, CD44<sup>+</sup>, TCR- $\alpha\beta$ <sup>+</sup>, V $\beta$ 8<sup>+</sup>, NK1.1<sup>+</sup>.

14. A process for producing a pharmaceutical composition for treating an autoimmune disease according to claim 11, 12 or 13, said autoimmune disease being insulin-dependent diabetes mellitus.

15. A therapeutic treatment method in which a therapeutically effective dose of interleukin-7 or T lymphocytes which have previously been incubated in the

presence of IL-7 is administered to a patient with an autoimmune disease.

5        16. A therapeutic treatment method in which a therapeutically effective dose of interleukin-7 or T lymphocytes which have previously been incubated in the presence of IL-7 is administered to a patient with insulin-dependent diabetes mellitus.